

Title (en)

APPARATUS AND METHODS FOR ASSESSMENT, EVALUATION AND GRADING OF GEMSTONES

Title (de)

VORRICHTUNG UND VERFAHREN ZUR BEURTEILUNG, BEWERTUNG UND EINSTUFUNG VON EDELSTEINEN

Title (fr)

APPAREIL ET MÉTHODES D'EXAMEN, D'ÉVALUATION ET DE CLASSIFICATION DE PIERRES PRÉCIEUSES

Publication

EP 2140251 A1 20100106 (EN)

Application

EP 08714479 A 20080402

Priority

- AU 2008000459 W 20080402
- AU 2007901825 A 20070403

Abstract (en)

[origin: WO2008119125A1] An apparatus (10) for assessment, evaluation and grading of gemstones has a stage (11) upon which a gemstone may be supported, the stage being enclosed in a housing (15) that is impervious to light. At least one light source (14) located in the housing is adapted to project incident light onto the gemstone. There are means for rotating and tilting the stage so as to vary the orientation of the gemstone to the incident light. A digital camera (16) is located in the housing adjacent the or each light source and is adapted to take images of the gemstone based on reflection and/or refraction of the incident light. There are also information processing means for calibrating and analysing the images, with the information processing means being programmed with an instruction set for colour calibrating the images and then analysing the colour calibrated images by segmentation and histogram measurement.

IPC 8 full level

G01N 21/87 (2006.01); **G01N 21/00** (2006.01)

CPC (source: EP US)

G01N 21/87 (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2008119125 A1 20081009; AP 2009005027 A0 20091231; AP 2720 A 20130731; AU 2008234423 A1 20081009; AU 2008234423 B2 20120223; CA 2681968 A1 20081009; CN 101652654 A 20100217; CN 101652654 B 20121031; EP 2140251 A1 20100106; EP 2140251 A4 20110420; EP 2140251 B1 20140319; HK 1141326 A1 20101105; JP 2010523180 A 20100715; JP 5474759 B2 20140416; RU 2009140389 A 20110510; RU 2476862 C2 20130227; US 2010111354 A1 20100506; US 8436986 B2 20130507; ZA 200907649 B 20110428

DOCDB simple family (application)

AU 2008000459 W 20080402; AP 2009005027 A 20080402; AU 2008234423 A 20080402; CA 2681968 A 20080402; CN 200880011090 A 20080402; EP 08714479 A 20080402; HK 10107669 A 20100811; JP 2010501328 A 20080402; RU 2009140389 A 20080402; US 45065208 A 20080402; ZA 200907649 A 20091030